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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,785	03/19/2004	Frits Goedegebuur	GC793-3	7768

7590 06/15/2006
VICTORIA L. BOYD
GENENCOR INTERNATIONAL, INC.
925 PAGE MILL ROAD
PALO ALTO, CA 94304-1013

EXAMINER

PATTERSON, CHARLES L JR

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,785

Applicant(s)

GOEDEGEBUUR ET AL.

Examiner

Charles L. Patterson, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004 and 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 8-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's election without traverse of group 11, claims 6-7 limited to SEQ ID NO:2 with a T66 substitution or deletion in the reply filed on 4/21/06 is acknowledged.

Claims 1-5 and 8-25, and claims 6-7 not limited as outlined *supra*, are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/21/06.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is confusing in the recitation of "one or more of the residues". Applicant has limited the invention to T66 and therefore the instant phrase is confusing. Also the claim does not meet the requirements of 37 CFR § 1.821(d) that requires the sequence by referred to by SEQ ID NO.

Claim 6 is incorrect in the recitation of "*H. jecorina*", which should be "*H. jecorina*".

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as

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to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants have aligned the sequences of 5 CBH1 homologs (Figure 2) and have concluded in paragraph 222 that these are "[p]ossible sites involving stability" (emphasis added) and in paragraph 223 that "sites where the residue in *H. jecorina* or *H. orientalis* is the same as that found in all of the decreased stability enzyme homologs resulted in the identification of sites that lacked correlation with T_m". In paragraph 224 they conclude that "Q186, S195, E325 and P412" "showed the best correlation with T_m stability". They then present claim 6 that is drawn to "a substitution or deletion at a position corresponding to one or more residues...T66...of the mature *H. jecorina* CBH1 protein" and claim 7 that is drawn to further substitutions. Apparently none of the sequences in Figure 2 show just one of the changes in claim 6 in combination with any or all of the changes in claim 7 and none of the sequences in the figure show a deletion of one of the residues in claim 6. It is well known that the effects of different changes in an amino acid sequence cannot be predicted with any certainty and therefore applicant must show that any and all of the changes in the instant claims will produce a protein with activity. This has not been done and therefore it is maintained that undue experimentation would be required to produce active proteins with the claimed changes.

Claims 6-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. As outlined *supra*, applicant has apparently not made and analyzed all of the mutant CBH1 enzymes of the instant claims and therefore it is maintained that at the time of filing one of skill in the art would not conclude that applicant had possession of the claimed invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by either of (A), von der Osten, et al. (B), Schulein, et al. (C), Miettinen-Oinonen, et al. (D) or Lund (E). von der Osten (B), as shown by the sequence search (V), has T66 substituted with S in SEQ ID NO:1. Schulein, et al. (C), as shown by the sequence search (W), has T66 substituted with S and T66 deleted in SEQ ID NO:11. Miettinen-Oinonen, et al. (D), as shown by the sequence search (X), has T66 substituted in SEQ ID NO:33, 35 and deleted in SEQ ID NO:35. Lund, et al. (E), as shown by the sequence search (U-1), has T66 substituted by S in SEQ ID NO:1-3.


Claims 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Radford, et al. (A). Radford, et al., as shown by the sequence searches (U), has T66 deleted in SEQ ID NO:3, T66 substituted with S and G242 substituted with S in SEQ ID NO:2 and T66 substituted with S and G242 substituted with S in SEQ ID NO:3.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
June 8, 2006